REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 13-34 are requested to be cancelled.

Claims 1, 6, 35 and 39 are currently being amended.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-12 and 35-45 are now pending in this application.

Rejection under 35 U.S.C. § 101

Claims 1-45 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. As to canceled claims 13-34, the rejection is moot. Applicant respectfully traverses the rejection of claims 1-12 and 35-45 for at least the following reasons.

The Examiner rejects the claims under 35 U.S.C. § 101, arguing that the claims recite a "module" and are, therefore, software claims. Applicant respectfully notes that claims 1-12 are method claims and do not recite any "module". Thus, claims 1-12 recite statutory patentable subject matter. As to claims 35-45, Applicant has amended independent claims 35 and 39 to more clearly recite the invention. Specifically, claims 35 and 39 have been amended to recite that the program product is embodied on a computer-readable storage medium. Thus, claims 35-45 now recite patentable subject matter.

Thus, the rejection under 35 U.S.C. § 101 should now be withdrawn.

-6-

Rejection under 35 U.S.C. § 103

     Claims 1, 4, 13, 16, 24, 27, 35 and 38 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,549,854 to Malinverno et al. (hereinafter "Malinverno") in view of Kilgore. Claims 2, 3, 14, 15, 25, 26, 36 and 37 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Malinverno in view of Kilgore and further in view of U.S. Patent No. 6,173,240 to Sepulveda et al. (hereinafter "Sepulveda"). Claims 6, 7, 17, 18, 28, 29, 39 and 40 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Malinverno in view of Kilgore. Claims 8-12, 19-23, 30-34 and 41-45 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Malinverno and Kilgore and further in view of Sepulveda. As to canceled claims 13-34, the rejections are moot. Applicant respectfully traverses the rejection of claims 1-12 and 35-45 for at least the following reasons.

     As noted in an earlier reply by Applicant, conventional uncertainty analyses are performed using a Monte Carlo analysis, which can require a large number of simulations to be executed with inputs being varied according to a corresponding underlying probability density function. Thus, a complete underlying analysis can be very time-consuming and can require a great amount of resources. Embodiments of the present invention resolve these issues through the use of a probabilistically equivalent model. Accordingly, independent claim 1 recites "generating a probabilistically equivalent model of said module." Independent claims 6, 35 and 39 recite similar features.

     In the "Response to Arguments" section of the Office Action, the Examiner argues that Applicants have failed to set forth where in the detailed description the claimed probabilistically equivalent model is described or defined. Applicant respectfully notes that the probabilistically equivalent model, as recited in the claims, and the conventional Monte Carlo analysis are both clearly described in the specification of the present application.

     For example, the problems associated with the Monte Carlo analysis are clearly described in paragraph [0050] on page 16 of the specification:

> A wide variety of methods have been developed and one of the simplest is the classical Monte Carlo method.... Although Monte Carlo methods (MCM) can be used for dealing with implicit models, these methods can be prohibitively expensive, especially when the computational cost is already high.

The probabilistically equivalent model is described in great detail in, for example, paragraphs [0052] to [0058] on pages 17-21. Further, Applicant has amended each of independent claims 1, 6, 35 and 39 to recite that the equivalent model uses polynomial chaos expansion, as described in the specification in paragraph [0052] on page 17.

As noted in the earlier reply by Applicant, none of the other reference cited by the Examiner teach or suggest anything related to uncertainty analyses using probabilistically equivalent models, as recited in the independent claims and described in the specification.

Accordingly, independent claims 1, 6, 35 and 39 are patentable. Claims 2-5 depend from allowable claim 1 and are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole. Similarly, claims 7-12 depend from allowable claim 6, claims 36-38 depend from allowable claim 35, and claims 40-45 depend from allowable claim 39. Therefore, claims 7-12, 36-38 and 40-45 are patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid
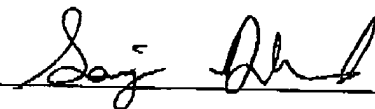
-8-

DLMR_311336.1

amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date: December 19, 2007

By _____

FOLEY & LARDNER LLP
Customer Number: 30542
P.O. Box 80278
San Diego, California 92138-0278
Telephone: (858) 847-6860
Facsimile: (858) 792-6773

Richard J. Warburg
Attorney for Applicant
Registration No. 32,327

by Sanjeev K. Dhand
Registration No. 51,182

-9-